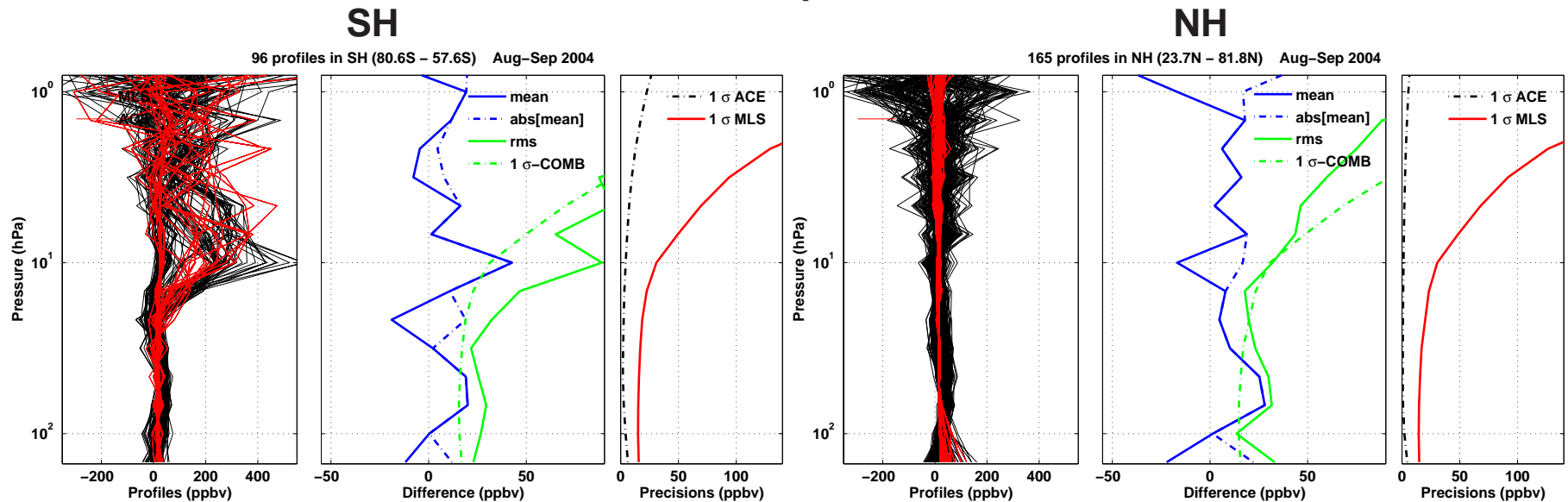


Initial comparison of MLS and ACE CO

Mark Filipiak, Carlos Jimenez

- V1.5 MLS data. Interpolated V2 ACE data, courtesy of the ACE team.
- August–September 2004, 6 days data.

Stratosphere



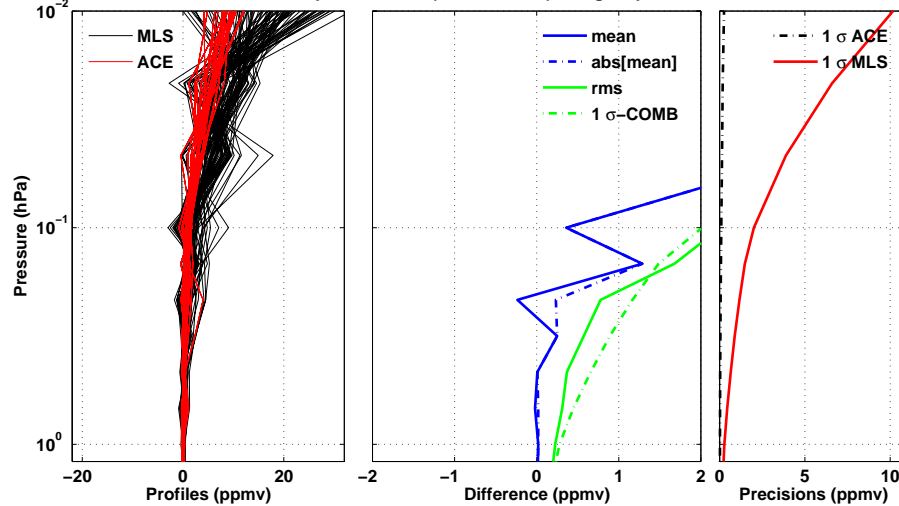
- Large values in SH upper strat are from descent of mesospheric, CO-rich, air during the winter. Large variability a combination of atmospheric and instrumental effects.
- Oscillations in MLS CO in upper strat are a known artefact, to be worked on for V2 of the data.
- MLS generally has a positive bias compared with ACE.
- MLS has a peak at 10 hPa, not so obvious in ACE. Model results (e.g., climatology from MOZART, used as *a priori* for MLS) show a similar peak in the polar vortex.

MLS/ACE CO

Mesosphere

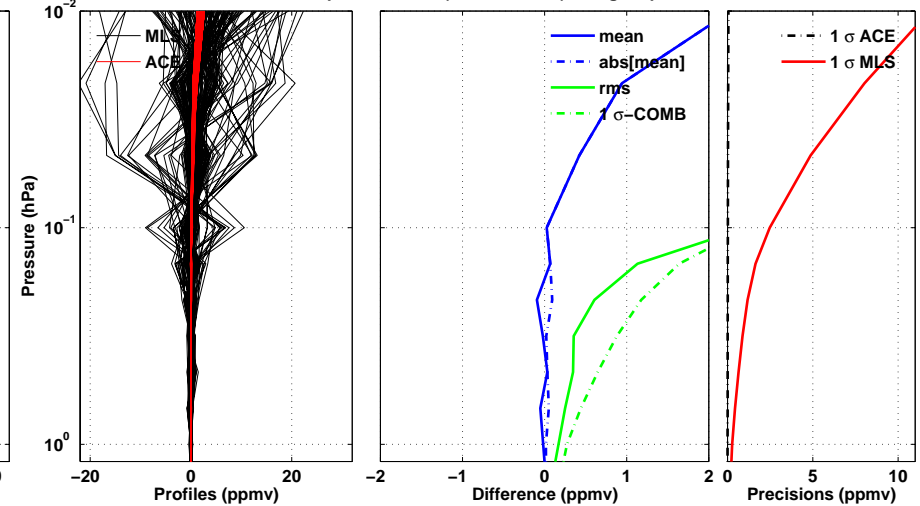
SH

96 profiles in SH (80.6S – 57.6S) Aug-Sep 2004



NH

165 profiles in NH (23.7N – 81.8N) Aug-Sep 2004



- As in the stratosphere, MLS generally is positively biased compared with ACE, and this bias is very large in SH, where mixing ratios are large.
- MLS CO has oscillations in the mesosphere, a known artefact, to be worked on for V2 of the data.